

VODOLAZSKAYA, I.U.

Poultry as an important source of increased meat production.
Ptitsaevodstvo 9 no.7:20-21 J1 '59. (MIRA 12:10)

I. Sekretar' Novo-Astrakhanского raykoma Kommunisticheskoy
partii Ukrayiny, Luganskoy oblasti.
(Novaya Astrakhan District--Poultry)

VODCLAZSKAYA, L.A.; MOLCHADSKIY, M.T.

Accumulation of raffinose in raffinade wash sirups. Sakh.
prom. 34 no.1:19-21 Ja '60. (MIRA 13:5)

1. Odesskiy rafinadnyy zavod.
(Sugar manufacture) (Raffinose)

VODOLAZSKIY, L. A.: Master Biol Sci (diss) -- "Problems of the methods of recording electromyograms and electrocardiograms of the worker during work in production". Moscow, 1959. 10 pp (Acad Med Sci USSR, Inst of Labor Hygiene and Occupational Diseases), 200 copies (KL, No 15, 1959, 115)

Vitamin needs and the determination of the quality of proteins in food products. V. N. Bukan and N. A. Vodolazskaya (Vitamin Inst., Moscow). *Biokhimiya* 15, 41-51 (1950). — The food value of proteins was determined in feeding expts. with rats, by a modified method of Cannon and co-workers (C.A. 38, 59379). Wheat, buckwheat, and oats represent the highest quality plant proteins for rats. Rye occupies an intermediate position, whereas millet and corn are of poor quality. Potatoes contain a good quality protein. Nicotinic acid is an effective agent for increasing the food quality of the proteins of rye, millet, oats, and especially of corn. H. Priestley

VODOLAZSKAYA, N. A.

USSR

A biological method for the determination of riboflavin.
K. L. Povolotskaya and N. A. Vodolazskaya, *Prudy Vrenyaz, Nauch.-Issledovatel. Praktika, Trud*, 4, 131-7 (1953); cf. *C.A.*, 49, 12570g.—Groups of young rats (30-40 g. each) of mixed sexes were fed the following riboflavin-free diet: riboflavin-free casein 25%; starch 01%; sunflower-seed oil 8%; fish oil 2%; Osborne and Mendel salt mixt. 4%, and 50 γ of mixt. of thiamin, pyridoxine, and Ca pantothenate. When symptoms of riboflavinavitaminosis appeared, the administration of increasing doses of riboflavin was initiated. The ml. therapeutic dose was 0 γ per day. Bioassay results with synthetic and natural vitamins proved their identity. B. S. Levina

VODOLASKAYA, N. A.

U.S.S.R.

✓ "Reticular norm for white Leghorn chicks." V. M. Klychev and N. A. Vodolaskaya. Trudy Vsesoyuz. Nauch.-Issledovatel. Tsentra po Tropicheskym Tsel. i Tropicheskym Zemel'ym (TET), 1953-8(1953).—A dry ration containing 0.5 mg. % riboflavin (I) is an adequate norm for 30-day-old white Leghorn chicks. It is sufficient to maintain weight gain, to protect against paralysis and to ensure an increase of I in the liver. A higher content of I in the diet serves no practical purpose. A diet of 0.2 mg. % of I effected a weight gain as effectively as 0.2 mg. %, but its content in the liver was lower. An increase in the boiled protein of the diet from 13.7 to 21.9% raised the gain in wt., but a 10 to 30% reduction, while causing no reduction in the wt., adversely affected the well-fed and fattened appearance of the chick. An increase in the boiled protein of the diet to 29% affected the wt. increase adversely.

B. S. Levine

Vodolazskaya N.A.

U.S.R.

Chemical and microbiological determinations of riboflavin in plant material. K. L. Povolotskaya and N. A. Vodolazskaya. *Trudy Vsesoyuz. Nauch.-Issledovatel. Vitamin. Inst.*, 4, 217-24 (1953); cf. *C.A.*, 47, 7579e; 49, 12032h.—Pretreatment of the plant material with clarase or polynase is an essential step in riboflavin (I) detn. Penicillinase was equally satisfactory. Treatment of the material with KMnO₄ is of value but in excess it causes partial decompn. of the vitamin. An excess of H₂O₂ in the elimination of the KMnO₄ must also be avoided. PbCl₄ and Na dithionite increase the I and clarify the ext. The following chem. method is proposed for the detn. of I in plant material: grind 5-10 g. of test material in a small vol. of 0.1N H₂SO₄; wash into a 100-ml. flask with the H₂SO₄ to a vol. of 75 ml.; heat in boiling water bath for 45 min.; cool to 40°; add satd. soln. AcONa to pH 4.5; add clarase or penicillinase at the rate of 0.03 g./g. of dry material; keep at 37° for 12-16 hrs.; bring vol. to 100 ml.; filter; take two 8-ml. aliquots; bring one to 10 ml. for the detn. of degree of fluorescence directly; to the other aliquot add 4% KMnO₄ until no color change (0.6-1.0 ml.); let stand for 10 min.; add 8% H₂O₂, drop at a time, until pink color disappears; add 0.2 ml. 0.05% SnCl₂ and 0.1 ml. 2.5% Na dithionite; leukoriboflavin is formed; shake for 20 min.; bring vol. to 10 ml.; filter. Now, dissolve 10 mg. cryst. I in 250 ml. H₂O; this standard stock soln. will keep in the dark for one month. Use 1 ml. of this stock + 99 ml. H₂O for standard of comparison. Det. degree of fluorescence of aliquots 1 and 2 and of standard; now, add to all 0.1 g. NaHCO₃ and

R. T. Levine

0.1 g. Na dithionite. The fluorescence in the standard becomes extinguished, but not in the test aliquots. Det. degree of fluorescence in the latter. For calcn. of results use the following formula: $x = 0.4B(A - B)/CD$ where x = I in $\gamma/g.$ of test material; A = reading of fluorometer for test solns.; B = fluorometer reading after the addn. of the NaHCO_3 ; C = reading of fluorometer for standard; 0.4 = γ concn. of standard; I = wt. in g.; B = diln. in ml. The microbiol. method is based on the fact that *Lactobacillus casei* grows well only in a medium contg. 0.005-0.5 γ I per ml. of medium. The procedures for maintenance of *L. casei* and the method for I detn. are described. In this method a 48-hr. incubation period is recommended. Final results are obtained by titration of the formed lactic acid. In only a few plant materials does the microbiol. method yield higher results. Generally, the chem. and microbiol. methods give comparable results. H
B. S. Levine

NIKOLAYEV, R.P.; POVOLOTSKAYA, K.L.; VODOLAZSKAYA, N.A.

Biological value of different concentrates and preparations of vitamin
C. Biokhimiya 18, 169-74 '53.
(CA 47 no.17:8855 '53) (MLRA 6:4)

1. Vitamin Inst., Moscow.

KIRSANOVА, V.A.; VODOLAZSKAYA, N.A.

Studying the effect of the folic acid antagonist 4-aminopteroxy-
aminoadipic acid on the development of transplanted leukosis in mice.
Vop.onk. 1 no.4:59-64 '55.
(MIRA 10:1)

1. Iz laboratorii eksperimental'noy khimioterapii (zav. chlen-korr.
AMN SSSR prof. L.F.Iaricnov) i laboratorii biokhimii Instituta ekspe-
rimental'noy patologii i terapii raka AMN SSSR (dir. - chlen-korr.
AMN SSSR prof. N.N.Blokhin) Adres avtorov: Moskva, 3-ya Meshchanskaya
ul., d.61/2, korp. 9, Institut eksperimental'noy patologii i terapii
raka.

(FOLIC ACID ANTAGONISTS, effects,
4-aminopteroxyaminoadipic acid, on exper. leukemia)
(LEUKEMIA, experimental,
eff. of 4-aminopteroxyaminoadipic acid)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

The action of a semi-automated minicomputer was taken.

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

VODOLAZSKAYA, N.A.

Antitumor action of some derivatives of sarcolysine and closely related compounds. Vop.onk. 7 no.5:77-84 '61. (MIRA 15:1)

1. Iz laboratorii eksperimental'noy khimioterapii (zav. - chl.-korr. AMN SSSR L.F. Larionov) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystv. chl. AMN SSSR N.N. Elokhin).

(SARCOLYSINE) (CYTOTOXIC DRUGS)

USSR/General Problems of Pathology - Experimental Therapy.

U-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, 75497

Author : Vodolazskaya, N.A., Novikova, M.A., Shkodinskaya, Ye.N.,
Vasina, O.S., Berlin, A.Ya., Larionov, L.F.

Inst :

Title : On the Antineoplastic Activity of Some Sarcolysine Deriva-
tives (dl-n-gu-(2-chloroethyl)-aminophenylalanine.

Orig Pub : Byul. eksperim. biol. i med., 1957, 44, No 11, 76-81

Abstract : Toxic and antineoplastic action (on sarcoma of 45 rats)
of 4 sarcolysine derivatives was studied: Ethyl- (I) and
isopropyl (II) ethers of dl-sarcolysine, dl-N-formylsarco-
lyzine (III) and dl-N-acetylsarcolysine (IV). It was de-
monstrated that I and II are very similar to sarcolysine
in toxicity and antineoplastic activity. III and IV are
less toxic and their antineoplastic action is weaker.
In order to obtain an effect close to that of sarcolysine,

Card 1/2

USSR/General Problems of Pathology - Experimental Therapy.

U-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, 75497

it is necessary to take a dose of III 25 times larger than that of sarcolysine (it often produces partial death of animals), and of IV only $1\frac{1}{2}$ to 2 times as large. --
O.V. Zubova.

Card 2/2

- 15 -

VODOLAZSKIY, G., inzh.; KULIKOV, N., inzh.

Learning to use rotary kilns equipped with conveyor calcinators.
Stroi. mat. 3 no.12:9-12 D '57. (MIRA 11:2)
(Kilns, Rotary)

VODOLAZSHIY, G.I.

Reconstruction of rotary kilns. TSement 28 no 16:19-20 N-D '62.
(MIRA 15:12)

1. TSementnyy zavod "Oktyabr".
(Kilns, Rotary)

VODOLAZSKIY, L.A.

Making electrograms of workers during work in industry. Biul.eksp.
biol. i med. 43 no.1 supplement:59-61 '57. (MLRA 10:3)

1. Iz laboratori fiziologii truda (zav. - doktor biologicheskikh
nauk professor S.A.Kosilov) Instituta gigiyeny turda i professional'-
nykh zabolеваний AMN SSSR (dir. - deyastvitel'nyy chlen AMN SSSR prof.
A.A.Istavet) Predstavlena deyastvitel'nym chlenom AMN SSSR V.N.
Chernigovskim)

(ELECTROCARDIOGRAPHY,
eff. of work, registration in workers during labor)
(ELECTROMYOGRAPHY
same)

VODOLAZSKIY, L.A.; ZOLINA, Z.M.; KOSILOV, S.A.

Electromyographic investigation of muscular activity in man during
prolonged industrial work. Fiziol. zhur. 45 no.9:1045-1052 S '59.
(MIRA 13:1)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR, Moskva.
(FATIGUE physiol.)
(ELECTROMYOGRAPHY)

VODOLAZSKIY, L.A.

Significance on interelectrode resistance during the registration
of bioelectric processes from the skin surface in humans. Biul.eksp.
biol. i med. 48 no.10:94-97 0 '59. (MIRA 13:2)

1. Iz laboratori fiziologii truda (zav. - doktor biol.nauk S.A.
Kosilov) Instituta gigiyeny truda i profzabolevaniy (dir. - deystvitel'-
nyy chlen AMN SSSR A.A. Letavet) AMN SSSR, Moskva. Predstavlena deyst-
vitel'nym chlenom AMN SSSR A.A. Letavetom.
(SKIN physiol.)

BERG, A.I., akademik, red.; VODGLAZSKIY, L.A., red.; SHAMSHUR, V.I.,
red.; LARIONOV, G.Ye., tekhn.red.

[Electronics in medicine] Elektronika v meditsine. Pod red.
A.I.Berga. Moskva, Gos.energ.izd-vo, 1960. 391 p.

(MIRA 14:2)

l. Akademiya nauk SSSR. Vsesoyuznyy nauchnyy sovet po radio-
fizike i radiotekhnike.

(ELECTRONICS IN MEDICINE)

VODOLAZSKIY, L.A., PODOBA, YE. V., AND SOLOVYEVA, V.P.

Institute of Labor Hygiene and Professional Diseases,
Academy of Medical Sciences USSR, Moscow - "Further
development of the method of recording of electro-
cardiograms and electromyograms of a worker during
work in the factory" (17)

Report to be submitted for the 4th Intl. Conf. on
Medical Electronics, New York N.Y., 16-21 July 1961

VODOLAZKIY, L.A.; POBORA, Ye.V.; SOLOV'YEVA, V.P.

Use of the TEK-1 tele-electrocardiograph in studies of the
physiology of work. Trudy VNIIMIO no.3:146-147 '63
(MIRA 18:2)

VODOLAZSKIY, Leonid Alekseyevich, kand. biol. nauk; STAROSTENKOVA,
M.M., red.; ATROSHCHENKO, L.Ye., tekhn. red.

[The body speaks; how and why the biocurrents of the body are
studied] Organizm rasskazyvaet, kak i dlia chego izuchaiut bio-
toki organizma. Moskva, Izd-vo "Znanie," 1962. 31 p. (Novoe v
zhizni, nauke, tekhnike. VIII Seriya: Biologiya i meditsina,
no.12) (MIRA 15:9)

(ELECTROPHYSIOLOGY)

VODOLAZSKIY, N.G.; RACHKO, A.A., glavnnyy bukhgalter; NAZARUK, Ye.S.

On a business accounting basis. Put' i put.khoz. no.1:14-16
Ja '59. (MIRA 12:2)

1. Nachal'nik Brestskoy distantsii puti Belorusskoy dorogi
(for Vodolazskiy) 2. Starshiy inzh. Brestskoy distantsii
puti Belorusskoy dorogi (for Nazaruk).
(Railroads--Track) (Railroads--Cost of operation)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOLAZSKIY, N.P.; KOTOV, L.I.; KOSOV, N.P.

Automatic control of the IA616 screw-cutting lathe. Stan.i
instr. 33 no.11:38-40 N '62. (MIRA 15:11)
(Lathes--Numerical control)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

VODOLAZSKIY, N.P., inzh.; KOSOV, N.P., inzh.

Continuous mechanized line for machining stepped rolls on lathes.
Vest.mashinostro. 42 no.9:59-63 S '62. (MIRA 15:9)
(Lathes)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOLAZSKIY, P. I., master

Change in the seals of the airpipes of 220 kv. air switches.
Energetik 10 no.8:15-16 Ag '62, (MIRA 15:10)

(Electric switchgear)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

VODOLAZSKIY, P.I., master

Concerning the defects of 35 kv. air switches, Energetik 11
no. 3:16-17 Mr '63.
(MIRA 16:4)

(Electric switchgear) (Electric cutouts)

L 13782-65 : EEO-2/FSS-2/EWT(1)/EEC(t)/EED-2 P₀-4/P₁₁-4/P_{ac}-4/P₁-4/P₂-4/P_k-4/P₁-4
ASD(a)-5/APETR/APGC(b)/R (M,a)/F1C(c)/.../.../.../.../.../.../...

ACCESSION NR: AP4044094

S/0141/64/007/003/0406/0414

AUTHOR: Vodolazskiy, V. I.; Terpugov, A. F.

TITLE: Optimal antennas for monopulse phase radars 24

SOURCE: IVUZ. Radiofizika, v. 7, no. 3, 1964, 406-414

TOPIC TAGS: monopulse radar, antenna directivity, signal noise ratio, optimum detection

ABSTRACT: Optimal directivity patterns that ensure minimum error in the determination of the target angle are determined under the following assumptions concerning the signal and noise: 1. The mean value of the signal/noise ratio at the antenna output is known. 2. The antenna output noise is independent, normal, and additively interacting with the signal. 3. The target is assumed to be planar with the antenna (defined by a single angle ψ). The probability distribution density $P(\psi)$ for the target angle is known. A proba-

Card 1/2

L 13782-65

ACCESSION NR: AP4044094

bility-theory definition is formulated for the antenna directivity pattern and its optimal value determined. The conclusions are:
1. Optimal antenna directivity patterns for monopulse phase radars exist and minimize the error in the determination of the target angle. 2. The use of optimal directivity patterns for an accurate determination of the target angle reduces the mean square error relatively little -- by not more than 20%. 3. The use of optimal directivity patterns to determine the sign of the angle makes it possible to reduce error probability by a factor of 4--5. Orig. art. has: 7 figures and 38 formulas.

ASSOCIATION: none

SUBMITTED: 25Mar63

ENCL: 00

SUB CODE: DC, EC

NO REF SOV: 001

OTHER: 002

Card 2/2

L 47389-66 EWT(1)/T/FSS-2 WR

ACC NR: AR6025791

SOURCE CODE: UR/0058/66/000/004/H044/H044

AUTHOR: Vodolazskiy, V. I.; Terpugov, A. F.

TITLE: Optimal antennas for monopulse radar 24

SOURCE: Ref. zh. Fizika, Abs. 4Zh304

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 171-206

TOPIC TAGS: antenna directivity, monopulse radar, diversity radar, mean square error, error minimization

ABSTRACT: The following problem is considered: What should the shape of the directivity pattern of an antenna system for a monopulse radar be in order that the rms error in the determination of the angular coordinates of the target, and also its range and velocity, be minimal in some sense. Monopulse radars are investigated in which the determination of the target angle is carried out by comparing the phases of reflected signals at the output of two spatially-separated antenna systems with identical directivity patterns. Only the plane case is considered, when the angular position of the target is characterized by only one angle. It is found that rational shaping of the directivity patterns of the radar antennas can reduce by a factor of several times the error in the determination of the target, its range, and velocity. G. Malushkov. [Translation of abstract]

SUB CODE: 09

b 3
B

15B

Card 1/1 hs

ACC NR: AR6026491

SOURCE CODE:UR/0274/66/000/004/A040/A040

AUTHOR: Vodolazskiy, V. I.; Terpugov, A. F.

TITLE: Optimal antennas in single-pulse radars

SOURCE: Ref. zh. Radiotekhnika i elektronika, Abs. 4A266

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 171-206

TOPIC TAGS: radar, single pulse radar, radar antenna, antenna directional pattern

ABSTRACT: This problem is considered: Which shape the antenna directional pattern in a single-pulse radar must have in order that the mean-square error, in determining the target angle and target range and speed, be minimal. The single-pulse radars are investigated in which the target angle is determined from a comparison of echo-signal phases at the outputs of two space-separated antennas having identical directional patterns. Only the planar case, in which the angular target position is defined by one angle, is considered. A rational shaping of the directional pattern can reduce the error in determining the target angle, range, and speed by several times. Bibliography of 9 titles. G. M. [Translation of abstract]

SUB CODE: 17

Card 1/1

UDC: 621.396.677.861:621.396.96

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOLZAKIN, V.M.

Hardness characteristics of thawed clay soils at various stages of
consolidation. Trudy SOIM no.2:66-72 '62. (MIRA 17:1)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

VODOPALAS, A.I.

Bird's foot trefoil, a good component of grassland mixtures.
Zemledelie 8 no.9:71-72 S '60. (MIRA 13:8)
(Bird's foot trefoil)

VODOF'HANOVA, T. D.

Judas Tree - Crimea

Judas Tree (*Cercis siliquastrum* L.) in Crimea. T. D. Vodop'yanova. Bot. mat. Gerb. 14, 1951.

Monthly List of Russian Accessions, Library of Congress, November 1952.
Unclassified.

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

TOMIC-KAROVIC, Krunoslava; SKALOVA, Radmila; ZAGAR, Zivojin; UGRCIC, Renka;
VODOPIJA, Alemka

The problem and appearance of resistance strains of *Staphylococcus*
pyogenes. Rad. med. fak. Zagreb 8 no.1:5-25 '60.
(STAPHYLOCOCCUS pharmacol) (ANTIBIOTICS pharmacol)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOPIJA, I.

Tropical diseases in our practice. Lijechn. vjesn. 84 no.9:935-937
'62.
(TROPICAL MEDICINE)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOPIJA, I.

Typhus -- an endemic quarantine disease in this country. Lijecn.
vjesn. 84 no. 10:1039-1042 '62.
(TYPHUS)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

YODOPIJA, I.

Epidemiology of typhoid fever --- old and new problems. Lijecn.
vjesn. 85 no.7:771-774 '63.

(TYPHOID) (EPIDEMIOLOGY)

X

YUGOSLAVIA

VODOPIJA, Dr I. [Affiliation not given].

"Epidemics of Typhoid Fever, an Old and New Problem."

Zagreb, Lijecnicki Vjesnik, Vol 85, No 7, July 1963, pp 771-774.

Abstract: The author discusses the 1963 epidemic in Switzerland, the 1962 outbreak in a US youth camp in Federal Germany, the 1962 epidemic in Saskatchewan, and periodic outbreaks in Zagreb and Yugoslavia (the most recent having been traced in 1962 to a Zagreb pastry shop). He states that the methods of the Swiss authorities on Zermatt, viz., closure of hotels (making it possible for the departed vacationers to spread the epidemic), are outmoded. Strict control over water supply, food, and potential contacts makes it possible to curb an epidemic effectively with much lower costs and losses.

Eighteen Yugoslav and Western references.

1/1

- 5 -

NAJMAN, Emil, dr.; REINER, Zeljka, dr.; KOSUTIC, Zvonimir, dr.; BREITENFELD,
Vladimir, dr.; VODOPLJA, Ivan, dr.

Salmonella java infection in children. Lijecn. vjeecn. 84 no.6:553-555
'62.

1. Iz Djecjeg odjela Opce bolnice "Dra M. Stojanovica", Bolnice za
zarazne bolesti u Zagrebu i Zavoda za zdravstvo grada Zagreba.
(SALMONELLA INFECTIONS in inf & child)

VODOPIJA, Ivan, dr.; TOMPAK, Biserka, dr.; SKALOVA, Radmila, dr.;
HELLENBACH, Helena, dr.

Isolation of S. typhi abdominalis from well water by the membrane
filtration method during the epidemic of typhoid fever in the village
Bratini in 1960. Lijecn. vjesn. 83 no.12:1241-1244 '61.

1. Iz Gradskog zavoda za zdravstvenu zaštitu, Skole narodnog zdravlja
"A. Stampar" i Bolnice za zarazne bolesti u Zagrebu.

(TYPHOID transm) (WATER SUPPLY microbiol)

VODOPIJA, Ivan, dr.; BUJEVIC, Aldo, dr.; MADJARIC, Drago, dr.; MIKIC, Fedor, dr.;
CVORISCEC, Tomislav, dr.

Determination of spreading of an epidemic with a rapid individual
"filter" survey. Lijecn. vjesn. 83 no.12:1261-1267 '61.

1. Iz Zavoda za zdravstvenu zaštitu grada Zagreba i NR Hrvatske, Skole
narodnog zdravlja "Andrija Stampar" i Sanitarnog inspektorata NO grada
Zagreba.

(HEALTH SURVEYS) (EPIDEMIOLOGY)

KOSUTIC, Zvonimir, dr.; REINER, Ivan, dr.; BREITENFELD, Vladimir, dr.; MILIC, Nedjeljko, dr.; PIEROTIC, Nevenka, dr.; SEKSO, Mladen, dr.; SOLJAN, Nevenka, dr.; TRNSKI, Josip, dr.; VODOPIJA, Ivan, dr.

Clinical characteristics of salmonellosis java in adults. Lijecn.
vjesn. 84 no.5:437-444 '62.

1. Iz Bolnice za zarazne bolesti, Internog odjela bolnice "Dra M.
Stojanovica" u Zagrebu i Zavoda za zastitu zdravlja grada Zagreba.

(SALMONELLA INFECTIONS case reports)

5

YUGOSLAVIA

Dr Ante HRABAR and Dr Ivan VODORIJA, State Institute of Health
(Republicki zavod za zdravstvo zdravlja) and City Institute of Health
(Zavod za zdravstvo zdravlja grada), Zagreb.

"Epidemic of Typhoid Fever Spread by a Pastry Shop."

Zagreb, Lijecnicki Vjesnik, Vol 84, No 12, Dec 62; pp 1209-1216.

Abstract [English summary modified]: An epidemic in Medversak, one of the better quarters of Zagreb, in summer 1961, very frustrating epidemiologic sleuthing finally traced it to a bricklayer neighbor of one of the milk suppliers of a pastry shop in the neighborhood; this summer the bricklayer was building his own barn so he did not leave for seasonal work as in other years. Over 100 cases of typhoid fever all the way back to 1933 had apparently been due to the same source. Diagram, table, 8 Yugoslav references.

1/1

VODOPIJA, Ivan, dr.; BARIC, Ljubo, dr.; SUBAJKOVIC, Mirajana, dr.; TOMPAK,
Biserka, dr.; ALERAJ, Dora, dr.; KOSUTIC, Zvonimir, dr.; BREITENFELD,
Vladimir, dr.

Salmonellosis java epidemija in a Zagreb hospital. Lijecn. vjesn. 84
no.4:331-338 '62.

1. Iz Zavoda za zastitu zdravlja grada Zagreba, Internog odjela Opce
bolnice "Dra M. Stojanovica", Zavoda za zastitu zdravlja NR Hrvatske i
Bolnice za zarazne bolesti u Zagrebu.

(SALMONELLA INFECTIONS epidemiol)

YUGOSLAVIA

Dr I. VODOPIJA [Affiliation not given]

"Typhus - An Endemic Quarantine-Liable Disease in Our Country."

Zagreb, Lijecnicki Vjesnik, Vol 64, No 10, Oct 1962; pp 1039-1042.

Abstract: Exhortatory editorial reviewing the situation of endemic typhus in Yugoslavia and stressing need for rapid elimination, citing difficulties and possibilities. Most of 26 references are Yugoslav.

1/1

VODOPIJA, Ivan, dr.

Immunization with live polio vaccine. Lijecn. vjesn. 84 no.6:545-551
'62.

1. Iz Zavoda za zdravstvenu zaštitu grada Zagreba.
(POLIOMYELITIS immunol) (VACCINATION)

TOMASEGOVIC, Z.; JANKOVIC, Z.; PETKOVIC, V.; STANIC, M.; BETLHEIM, S.; BLAZEVIC, D.; PERSIC, N.; ZORINC, S.; TEODOROVIC, B.; VRANCIC, J.; VODOPIJA, I.; ANTONIAZZO, Z.; CULIC, R.; GALINOVIC-WEIEGLASS, M.; RUDENOV,~~ZAG~~,^{ZAG}; MRAVUNAC, B.; KOEHLER-KUBELKA, N.; CEZNER, M.; KOHN, V.; TEKAVCIC, B.; EMILI, H.; SMERDEL, S.; SOOS, E.; VUKSANOVIC, V.; JANJATOVIC, M.; DERVIC~~ZAG~~,^{ZAG}; GRUENWALD, P.; SKRABALO, Z.; CREPINKO, I.; HAUPTMANN, E.; VIDACEK, S.; HORVAT, A.; MIOCKA, O.; IVANCEVIC, D.; PERGER, A.; KRSNJAVA, B.; PRAZIC, M.; SALAJ, B.; SUBOTIC, R.; RADOSEVIC, Z.; KELER-BACOKA, M.; HAHN, A.; MATKOVIC, B.; RADONIC, M.

Review of periodicals; medicine. Bul sc Youg 9 no.4/5:145-147
Ag-O '64.

- 34 -

YUGOSLAVIA

Epidemiology

VODOPLIJA, Ivan, Dr: Secretary of Public Health and Social Welfare of the City of Zagreb (Sekretarijat za narodno zdravlje i socijalnu zastitu grada Zagreba), Zagreb.

" German Measles in Zagreb"

Zagreb, Lijecnicki Vjesnik, Vol 88, No 2, 1966, pp 125-134

Abstract /Author's summary modified/: Statistical analysis of over 10,000 notifications in the period 1952 to 1964 show that German measles appear in periodic cycles from 5 to 7 years as a spring-time disease predominantly affecting school children. No increase in congenital malformations was observed. During the outbreaks in 1962 and 1963, German measles seemed to attack the same persons in two consecutive years, indicating that the immunity following the disease may not be long - lasting or that there may be more than one type of causative agent. Tables and graphs. 1 Yugoslav and 55 Western references. Received for publication 23 September 65.

1/1

VODOPIJA, Janko, Dr.; TOMPAK, Biserka, Dr.

Epidemiological considerations on diseases caused by *Salmonella* blockley. Lijec vjes 82 no.9/10 '60.

1. Iz Higijenskog zavoda grada Zagreba
(SALMONELLA INFECTIONS epidemiol)

PLANIC, Radoslav, ing. (Zagreb); VODCPIJA, Zeljko, dipl. ec. (Zagreb)

Characteristics of investment in 1960. Energija Hrv 10 no. 5/6:171-172
'61.

1. Zajednica elektroprivrednih poduzeca Hrvatske, Zagreb, Proleterskih brigada 37. 2. Clan Urednickog odbora, "Energija," urednik rubrike "Izgradnja elektroenergetskih postrojenja" (for Planic).

PLANIC, Radoslav, inz.; VODOPIJA, Zeljko, dipl. ee.

*Characteristics of the investments in electric-power engineering
in 1961.. Energija Hrv 11 no.5/6:166-167 '62.*

1. Zajednica elektroprivrednih poduzeca Hrvatske (Zagreb,
Proleterskih brigada 37). 2. Clan Urednickog odbora, "Energija"
(for Planic).

K. Cazafura; PAVKO, D.; SIRCA, F.; KERSNIC, Viktor, prof. dr. inz.;
KOSAK, K.; GRAFENAUER, S.; PODGORNIK, A.; KERNIC, J.; DOBOVISEK,
Bogomir, docent, dr. inz.; OCEPEK, Drago, docent, dr. inz.;
HOMAN, A.; MARCEC, M.; RANKEL, J.; CRNIVEC, M.; SMAJIC, N.;
CUCEK, I.; KERSNIC, V., ml.; VODOPIVEC, F.

New books. Rud met zbor no. 2:144-187 '63.

1. Glavni urednik, "Rudarsko-metalurski zbornik" (for
Viktor Kersnic).
2. Clani Uredniskega odbora, "Rudarsko-metalurski zbornik"
(for Dobovisek and Ocepек).

VUDOVIVEC, Franc, dr inz., saradnik (Ljubljana, Lepi pot 11)

Influence of phosphorus on the morphology of oxide layers in
the surface oxidation of heat iron. Tehnika Jug 19 no.3:Suppl:
Radioizotopi zrac 3 no.1:33-39 Ja '64.

1. Metalurski institut u Ljubljani.

Y/001/63/000/001/003/004
D267/D308

AUTHOR:

Vodopivec, Franc

TITLE:

Application of radioactivation for the quantitative study of the enrichment of iron surface with arsenic

PERIODICAL:

Tehnika, no. 1, 1963, 25-31 (Radioaktivni izotopi i zračenja, v. 2, no. 1, 1963, RI1-RI7)

TEXT: The lesser affinity to oxygen of arsenic compared with iron results in a high enrichment with arsenic of a thin metal layer at the iron-oxide-steel boundary: on the other hand it is known that an As content in excess of ca. 0.3% has a detrimental effect on the mechanical working of steel. The distribution of As in the enriched layer was determined by using ^{76}As . Ferrous alloy specimens with 0.075% As were oxidized and then irradiated for 3-6 days in a nuclear reactor. Owing to its greater effective cross section, As underwent more intense activation than Fe. Next metal layers of ca. $1\ \mu$ were dissolved anodically, both from the outer surface of the specimens, and from the inner surface of the oxide

Card 1/2

Y/001/63/000/001/003/004
D267/D308

Application of radioactivation ...

film which had been carefully detached from the metal. The bath used consisted of CH_3COOH and HClO_4 . As was then precipitated as sulphide, using MoS_3 as the main precipitate. By comparing the count rate of these two precipitates with that of the standard precipitate obtained from the original alloy, the As contents were determined. It was found that all of the As in the oxidized metal layer is concentrated in the enriched metal layer at the metal/oxide boundary. The As distribution curves taken after oxidation at 800 and 1000°C differ from one another. In the former case they resemble the diffusion curves in systems with complete solubility in solid state; in the latter they resemble the diffusion curves in systems with limited solubility in solid state. There are 9 figures and 5 tables.

ASSOCIATION: Metalurški institut u Ljubljani (Metallurgical Institute, Ljubljana)

Card 2/2

VODOPivec, Franc, dr.

Microstructural characterization of gray cast iron released with
the EX nickel electrode. Livar vest 10. No. L/54134-179

J. Metallurgical Institute, Ljubljana.

VODOPIVEC, Franc

Effect of smaller admixtures of arsenic and phosphorus on
iron oxidation. Rud met zbor no.1:15-31 '63.

VODOPIVEC, Franc, dr. inz. (Ljubljana, Lepi pot 11)

Desulfuration at the beginning of surface oxidation of
the iron alloyed with 0.001% of radioactive sulfur.
Technika Jug 18 no.4: Suppl.: Radioizotopi zrac 14 no.4:625-629
Ap'63.

1. Saradnik Metalurskog instituta, Ljubljana.

VODOPivec, Franc, dr. inż.; MEGUSAR, Janek, dipl. inż. metalurgija

Effect of the nonoxidized aluminum and nitrogen content on
the austenitic grain size in iron and steel. Rud met zbor 3:
297-305 '64.

1. Metallurgical Institute, Ljubljana, Lepi pot 11.

CA

11-19

Potassium and carbohydrate metabolism in diabetes mellitus. V. Delista and M. Vodopivec (Univ. Zagreb, Yugoslavia). *Gastroenterologia* '76, 27(5-6):1050,51).—Lability of serum K level produced in controlled diabetics by administration of 0.0116 g./kg. of acetylcholine, is reduced by addn. of hydergin (0.0102 mg./kg.) and elimination of K is reduced to a very small amt. Admin. hydergin leads to greater lowering of blood sugar and reduction of the glycosuria. The insulin effect is enhanced. The sole administration of hydergin (0.0147 mg./kg.) produces the same effect in acetylcholine-sensitive diabetics. R. B. P.

11X

CA

The effect of glucose and hydergin level on clotting time in man. M. Valenovic and N. Jelavik (Med. School, Zagreb, Yugoslavia). *Acta Haematol.* 4, 363-73 (1941). Ingestion of glucose (1) reduced coagulation time in a degree related to the initial clotting time and existing tendencies to fast or slow coagulation. A rise in I concn. *in vitro* corresponding to that following its ingestion did not alter the plasma prothrombin and thrombin times. Parenteral administration of the hydrogenated ergot alkaloids dihydroergocornine, dihydroergocristine, and dihydroergokryptine inhibited the hyperglycemia following I ingestion, but did not prevent the decrease in clotting time. Parenteral administration of hydergin alone reduced clotting time which persisted up to 8½ hrs. Ruth B. Pitt

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOPIVEC, Franc, dr inz., saradnik (Ljubljana, Lepi pot 11)

Use of autoradiography in metal testing. Tehnika Jug 19
no.3:Suppl:Radioizotopi zrac 3 no.3:419-428 Mr '64.

1. Metallurgical Institute, Ljubljana.

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

VODOPIVEC, Franc, dr inz. (Ljubljana, Lepi pot II)

Use of radioactivation in the quantitative analysis of iron
surface dressing with arsenic. Tehnika Jug:Suppl.: Radioizotopi
zrac. 2 no.1:25-31 Ja '63.

1. Saradnik Metalurskog instituta u Ljubljani.

SIRCA, F.; DOBOVISEK, Bogomir, docent, dr. inz.; GRAFENAUER, S.; KOSOVINC, I.;
HAMRLA, B.; VODOPivec, F.; KUSCER, D.; KERNIC, J.; DROBNE, F.;
PAVKO, D.; CAZAFURA, K.; TURK, St.; OCEPEK, Drago, docent, dr. inz.;
ROSINA, A.; ZUMER, M.; SOVINC, I.

New books. Rud met zbor 4:431-457 '63.

1. Članovi Uredniškega odbora, "Rudarsko-metalurski zbornik"
(for Dobovisek and Ocepek).

VODOPIVEC, S.

Yugoslavia (430)

Technology

Medical treatment of hypodermosis and its economic
importance. p. 197, Nova Proizvodnja, Vol. 2,
no. 2/4, August 1951.

East European Accessions List, Library of Congress,
Vol. 2, No. 3, March 1953. UNCLASSIFIED.

VODOPIVEC, V.

Yugoslavia (430)

General - Serials

Some observations on the problem of the relationship between church and state. p. 11. NASI RAZGLEDI. (Tiskovni konzorcij "Ljudske pravice") Ljubljana. (Illustrated fortnightly on political, economic, and cultural problems), Vol. 1, no. 10, July 12, 1952.

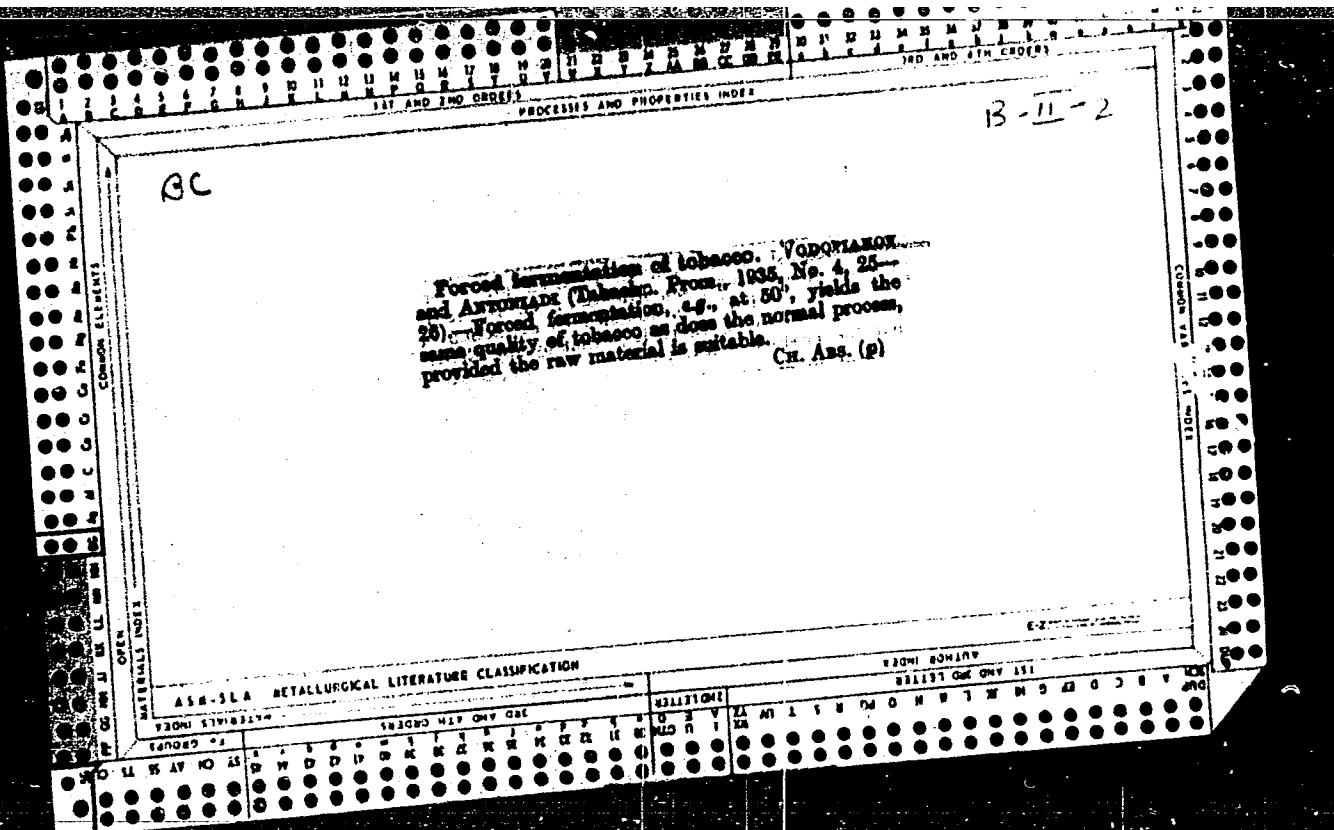
East European Accessions List. Library of Congress, Vol. 1, no. 13, November 1952.

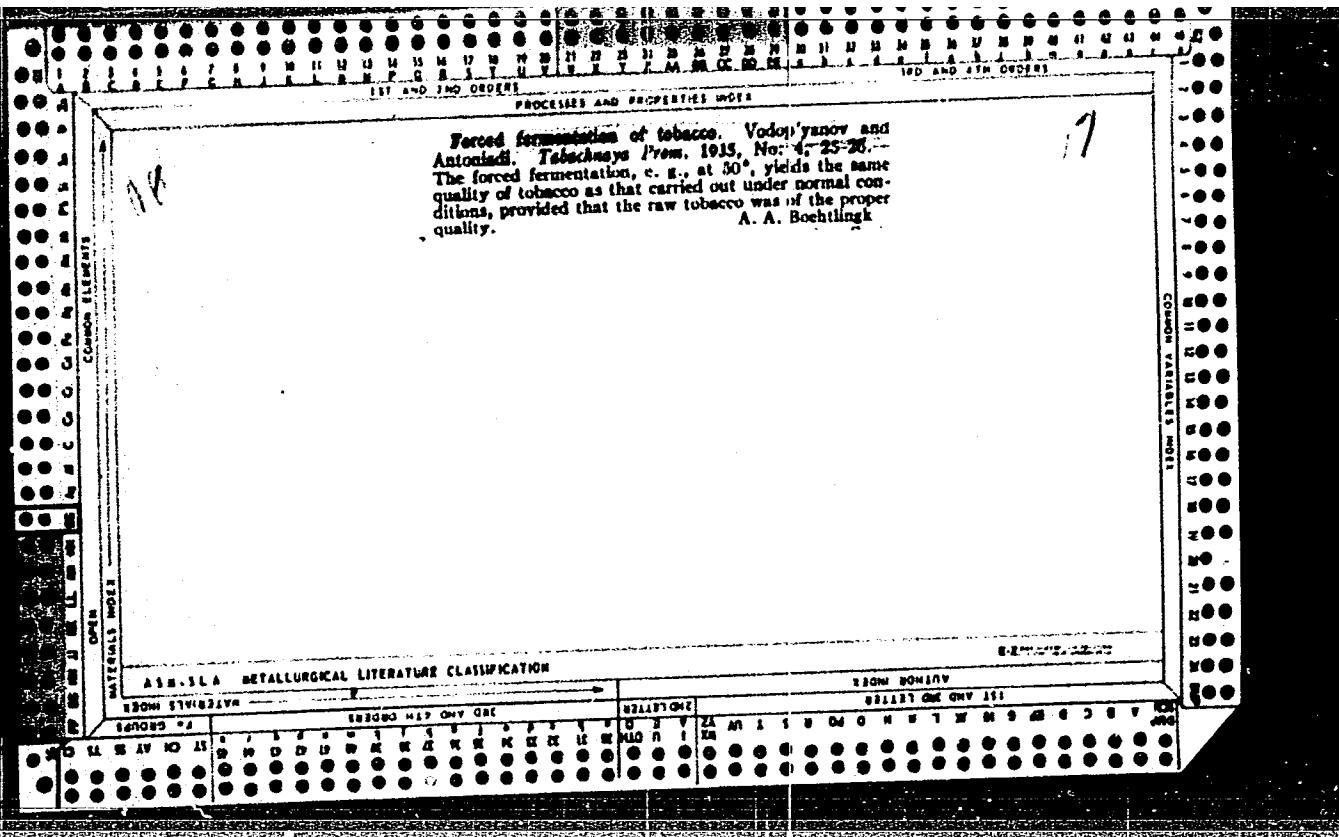
UNCLASSIFIED

VEKSLER, V.J.; VODOPJANOV, A.F.; JEFREMOV, D.V.; MINC, A.Z.; VEISBEIN, M.M.;
GASEV, M.G.; ZEJDLIC, A.J.; IVANOV, T.P.; KOLOMENSKIJ, A.A.; KOMAR, E.G.;
MALYSEV, J.E.; MONOSZON, M.A.; NEVJAZSKIJ, J.Ch.; PETUCHOV, V.A.;
RABINOVIC, V.A.; RUBCINSKIJ, S.N.; SINEVNIKOV, K.D.; STOLOV, A.M.;
KULT, Karel, inz.

The synchrophasotron for particle acceleration to 10 BeV energy of the
Soviet Academy of Sciences. Jaderna energie 3 no.1:5-9 Ja '57.

1. Ustav jaderne fysiky (for Kult).





"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOP'YANOV, A.

Experience in casting low-sulfur iron. Mor. i rech. lot 14 no.8:
31 Ag '54.
(Iron founding)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

VODOP'YANOV, A.A.; FUTLIKOV, V.A.

Modernization of the set of horizontal broaching machines.
Biul. tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekhn.
inform. 17 no.4:25-27 Ap '64. (MIRA 17:6)

VODOP'YANOV, A.A.

The 7B510 horizontal broaching machine. Mashinostroitel' no.7:
(MIRA 16:9)
19 J1 '63.
(Broaching machines)

VODOP'YANOV, A.A.; GLEKOV, S.F.

Protective ball clutch. Mashinostroitel' no.9:28 S '62.
(MIRA 15:9)
(Clutches (Machinery))

GLEKOV, S.F.; VODOP'YANOV, A.A.

Continuous horizontal broaching machine. Biul.tekh.-ekon.inform.-
Gos.nauch.-issl.inst.nauch. i tekhn.inform. no.4:41-43 '62.
(MIRA 15:7)

(Broaching Machines)

VODOP'YANOV, A.A.

Mechanism for accelerating the exchange of cutting tools.
Mashinostroitel' no.11:21 N '63. (MIRA 16:11)

37937
S/193/62/000/004/008/008
A004/A101

11100

AUTHORS: Glekov, S. V., Vodop'yanov, A. A.

TITLE: Continuous horizontal broaching machines

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 4, 1962, 41-43

TEXT: The Special Designing Bureau of the Belorussian Sovnarkhoz has developed a range of continuous horizontal broaching machines. The machines, having a broaching force of 10, 5 and 2.5 tons respectively, were manufactured and tested by the Minskiy stankostroitel'nyy zavod (Minsk Machine Tool Plant) im. Kirov in 1961 and are intended for working outer surfaces of different shape and size by broaching. In contrast to the ordinary models, these continuous broaching machines have no idle reverse stroke, the carriage does not stop prior to and after machining of each component, and loading is effected during operation. The broaching machines here described have a capacity of 500 - 2,500 components per hour depending on the broaching speed. The authors present a brief description of the machine operation and give the following technical specifications:

Card 1/2

S/193/62/000/004/008/008
A004/A101.

Continuous horizontal broaching machines

Parameters	Model		
	7581	7582	7583
Rated tractive force, tons	2.5	5	10
Maximum broaching length, mm	1,050	1,500	2,100
Length and width of carriage, mm	186 x 260	130 x 265	175 x 300
Number of carriages	19	23	25
Broaching speed (8 stages), m/min	2.5 : 12.5	2.3 : 11.5	2.4 : 12
Main driving motor power at 1500rpm, kW	4.5	10	20
Overall dimensions, mm:			
Length (without conveyer)	3,025	3,525	4,350
Width	1,040	1,160	1,240
Height	1,175	1,215	1,445
Weight, kg	3,230	4,390	5,880

There are 2 figures.
Card 2/2

ACCESSION NR: AP4033691

s/0193/64/000/004/0025/0027

AUTHOR: Vodop'yanov, A. A.; Futlikov, V. A.

TITLE: Modernization of horizontal-broaching machines

SOURCE: Byulleten' tekhniko-ekonomiceskoy informatsii, no. 4, 1964,
25-27

TOPIC TAGS: broach, horizontal-broaching machine, improved design,
hydraulic system, unification coefficient

ABSTRACT: The 1952 horizontal broaching machine models 7505, 7A510,
and 7A520 were modernized in 1962 and are now produced as models
7A505, 7B510, and 7B520 differing only in size. The new design
includes a special mechanism for swarf removal which formerly was
accomplished manually, an improved hydraulic system to provide more
uniform cutting speeds, and an improved tracking mechanism. The new
models ensure higher performance, easier maintenance, and safer
operation, and can be included in automatic lines. A high parts
exchangeability coefficient and considerable savings have been
effected by basing the new design on the assemblies used in vertical

Card 1/2

ACCESSION NR: AP4033691

broaching machines. Orig. art. has: 1 table and 1 figure.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NR REF SOV: 000

OTHER: 000

Card 2/2

GLEKOV, S.P.; VODOP'YANOV, A.D.

The 7B520 horizontal broaching machine. Biul.tekh.-ekon.inform.Gos.-
nauch.-issl.inst.nauch. i tekhn.inform. no.8:26-28 '62. (MIRA 15:7)
(Broaching machines)

S/193/62/000/008/001/001
A004/A101

AUTHORS: Glekov, S. F., Vodop'yanov, A. D.

TITLE: Model 7B520 (7B520) horizontal broaching machine

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 8, 1962, 26 - 28

TEXT: The Minskiy stankostroitel'nyy zavod im. S. M. Kirov (Minsk Machine Tool Plant im. S. M. Kirov) has manufactured the 7B520 horizontal broaching machine designed by the Special Designing Bureau No. 12. The machine is intended for broaching precision holes of different geometrical shape and dimensions. By using special devices it is possible to machine keyways and external surfaces. Since the change-over of the machine requires only a short time, it can be expediently used also in small-batch and piece production. In large-scale production with an automatic cycle the machine has a capacity of 45 - 170 components per hour, depending on the kind and dimensions of the workpieces to be machined. The 7B520 machine is manufactured in two models, one with and the other without attached bed. The first model is intended for operations with light broaches in piece or small batch production as well as for work requiring special adjustment. The surface finish attained at high speeds is up to $\nabla 7$. The second model is mounted on a bed. ✓

Card 1/2

S/193/62/000/008/001/001

A004/A101

Model 7B 520 (7B520) horizontal broaching machine

fitted with devices that make it possible to operate on an automatic cycle. The authors give a brief description of the main machine units and present the following technical specifications: Rated tractive force - 20 tons; length of stroke of the working carriage - 1,600 mm; length of stroke of the supporting roll - 600 mm (for the second model only); working stroke speed - from 1.5 - 11 m/min; maximum efficiency of the main drive hydraulic pump - 300 l/min; face plate hole diameter - 130 mm; main drive motor power - 20 kW; machine overall dimensions - 4,670 x 1,500 x 1,370 mm (the length of the second model is 6,835 mm); machine weight - 4,220 kg (that of the second model is 4,970 kg). The 7B520 broaching machine replaces the 7A520 model and, in comparison with the latter, possesses the following improvements: it is by 500 kg lighter and the surface area required has been reduced by 20%; its efficiency is by 15% higher, while servicing takes less time. In December 1961 the State Comission recommended the machine for the large-scale output. There is 1 figure.

✓

Card 2/2

BUDANOV, V.P.; TARASOV, A.Ya.; VODOP'YANOV, A.I.

Knockmeter with phase indicator. Avt.i trakt.prom. no.4:15-17
Ap '56. (MLRA 9:8)

1. Gor'kovskiy avtozavod imeni Molotova.
(Automobiles--Engines--Testing)

ZONOV, G.B.; VODOP'YANOV, B.G.

Black-capped chickadees spending winter nights in rodent burrows.
Dokl. Irk. gos. nauch.-issl. protivochum. inst. no.58153-155 '63
(MIRA 18:1)

ZONOV, G.B.; VODOV'YANOV, B.G.

Information on winter roosting of some birds in the Baikal Lake
region. Nauchnoe obozrenie po zoologii i ekologii, no.1:34-36 '66.
(MIRA 1941)

1. Rekomendovana Irkutskim nauchno-issledovatel'skim
protivochumnym institutom. Submitted April 16, 1964.

VODOPO'YANOV, F. A.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 398 - I

Call No.: TK6575.V6

BOOK

Author: VODOP'YANOV, F. A.

Full Title: RADAR

Transliterated Title: Radiolokatsiya

Publishing Data

Originating Agency: Bureau of Inventions, State Planning Commission
of the USSR

Publishing House: Publishing House of the State Planning Commission

Date: 1946

Editorial Staff No. pp.: 150

No. of copies: 10,000

Editor: Yu. Kobzarev

Tech. Ed.: None

Editor-in-Chief: None

Appraiser: None

Others: None

Text Data

Coverage: A systematic exposition of the entire field of radio location and ranging of "passive" targets (as distinct from "active" targets, such as radio beacons, ranges, etc.). The author includes in this field radio goniometric stations (where the location of the target is determined from two or three points), automatic tracking stations, installations employing pulsed-radiation methods, and those employing continuous-radiation methods (phase-type, interference-type, and frequency-modulation range finders). The components and operating methods of each system are described in a general manner.

1/2

Radiolokatsiya

AID 398 - I

The book is based on open patent and periodical literature of the pre-war period. The sources are almost exclusively foreign, although the author does give a few Soviet works in this field.

TABLE OF CONTENTS

Introduction.

1. Radar Installations
2. Pulse-Type Range Finders
3. Phase-Type Range Finders
4. Interference-Type Range Finders
5. Frequency-Type Range Finders

Purpose: Intended to present a systematized material on the basic methods of early radar development for the benefit of engineers and scientists

Facilities: None

No. of Russian and Slavic References: None

Available: Library of Congress

2/2

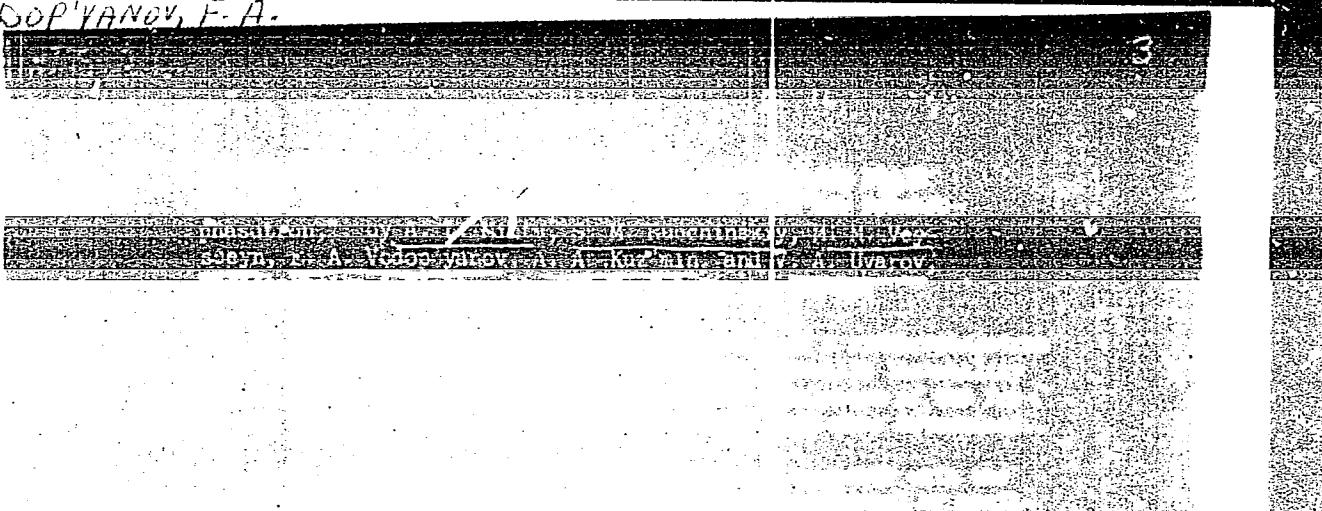
VEKSLER, V. I.; YEFREMOV, D.V.; MINTS, A.L.; VEYSBEIN, M.M.; YODOP'YANOV,
F.A.; GASHEV, M.A.; ZEYBLITS, A.I.; IVANOV, P.P.; KOLOMENSKIY,
A.A.; KOMAR, Ye.G.; MALYSHEV, I.F.; MONOSZON, L.A.; NEVYAZHSKIY,
I.Xh.; PETUZHOV, V.A.; RABINOVICH, M.S.; GUBCHINSKIY, S.M.; SL-
NEL'NIKOV, K.D.; STOLOV, A.M.

Ten Bev energy synchrocyclotron built by the Academy of Sciences
of the U.S.S.R. Atom.energ. no.4:22-30 '56. (MLRA 9:12)
(Cyclotron)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9

VODOP'YANOV, F. A.



APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860330001-9"

Vodop'yanov, F. A.

"The Master Oscillator in the System Coupling the Accelerating Field Frequency and the Intensity of the Magnetic Field in the 10 Bev Synchrophasotron," by F. A. Vodop'yanov, Radio-tehnika i Electronika, No 7, Jul 56, pp 928-939

A description is given of the wide band master oscillator in which the principle of the negative feedback was utilized by means of a precise frequency detector for stabilization of the modulating characteristics.

Persons who participated in the project were I. M. Gromov, Yu. F. Dushin, and V. N. Manin.

VODOPYANOV, F. A., MINTS, A. L., RUBCHINSKIY, S.M., VEYSBEYN, M.M., VASIL'YEV, A.A.

"Some Technical Characteristics of the 10 GeV Proton Synchrotron
Electronic System," paper presented CERN Symposium, 1956, appearing in
Nuclear Instruments, No. 1, pp. 21-30, 1957

VLADIMIRSKIY, V.V.; KOMAR, Ye.O.; MINTS, A.L.; GOL'DIN, L.L.;
MONOSZON, N.A.; RUBCHINSKIY, S.M.; TARASOV, Ye.K.; VASIL'IEV, A.A.;
VODOP'YANOV, F.A.; KURYSHEV, D.G.; KURYSHEV, V.S.; MALYSHEV, I.F.;
STOLOV, A.M.; STREL'TSOV, N.S.; YAKOVLEV, B.M.

The 7 bev. proton synchrotron. Prib. i tekhn. eksp. 7 no.4:5-9
Jl-Ag '62. (MIRA 16:4)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosu-
darstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR,
Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury
Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii
SSSR i Radiotekhnicheskiy institut Gosudarstvennogo komiteta
po ispol'zovaniyu atomnoy energii SSSR.
(Synchrotron)

40738

246739
S/120/62/000/004/003/047
E140/E420

AUTHORS: Rubchinskiy, S.M., Batskikh, G.I., Vasil'yev, A.A.
Vodop'yanov, F.A., Gutner, B.M., Kuz'min, A.A.,
Kuz'min, V.F., Lebedev-Krasin, Yu.M., Uvarov, V.A.

TITLE: The electronic system of the 7 Gev proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 20-26

TEXT: The article surveys the electronic system of the 7 Gev proton synchrotron, the individual parts of which are described in individual articles in the same number of the journal. The electronic circuits control the continuous increase of the energy of the accelerated particles. For the chamber aperture used in the apparatus, the deviation of the momentum from the equilibrium value cannot exceed $\pm 5 \times 10^{-3}$. The instantaneous values of H must be held to within 10^{-3} at the start ($f = 0.67$ Mc/s) and 5×10^{-5} at the end of the acceleration cycle ($f = 8.31$ Mc/s). The synchrotron frequency varies from 3600 to 150 c/s. To keep the oscillations of phase with passage through resonance less than the adiabatic damping of these oscillations, the harmonic frequency modulation of the accelerating potential by the synchrotron frequency should not exceed 0.5 c/s and the harmonic amplitude

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of the modulation at the same frequencies should be less than 2×10^{-4} at the start and 5×10^{-3} at the end of the cycle. The spectral density of noise modulation should be of the order of $2 \times 10^{-3} \text{ cs}^2/\text{cs}$. The precision of measuring H at the instant of injection was prescribed as 3×10^{-4} . These requirements are met by a programmed frequency control with correction for the radial and phase positions of the beam, calculated for beam intensities of 10^8 to 10^{12} particles. The beam measuring system consists of a precise discrete integrator and a meter for the initial level of the magnetic field intensity. Special equipment is required for the automatic measurement of the instantaneous values of frequency and field intensity, the measurement of micromodulation of the frequency and amplitude of the accelerating potential, variations of beam intensity over the acceleration cycle, the azimuthal distribution of particle density in the bunch, and the position of the beam in the vacuum chamber. An overall block diagram of the system is given and also summary descriptions of the systems for generating the accelerating field, the acceleration control and the measuring equipment. The

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particles are accelerated at the seventh harmonic of their frequency of revolution - in the band from 0.67 to 8.31 Mc/s. The energy increase is 4.3 keV per revolution. The accelerating elements are 2.4 m drift tubes located in 11 compensating electromagnets. The transit angle in each tube is about 25° and the ratio of accelerating potential to the potential across the tube is about 0.43. The system ensures a phase oscillation of the beam below 0.05 r and stabilizes the radial position to within \pm 1 mm. There is 1 figure.

ASSOCIATION: Radiotekhnicheskiy institut GKAE
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SUBMITTED: April 23, 1962

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AUTHOR: Vodop'yanov, F.A.

TITLE: Precision driver generator for the system of programmed control of frequency of the accelerating field of the proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no. 4, 1962,
80 - 84

TEXT: The required frequency range from 590 kc/s to 8.31 Mc/s for the 7 GeV proton synchrotron with a frequency stability of the upper limit of 8×10^{-5} was achieved by using a system consisting of a ferrite-tuned LC-oscillator, a special wideband frequency multiplier and a heterodyne mixer. The LC-oscillator, which is modulated by the current from the programmer (p. 89 of this issue of the journal) is based on the Clapp circuit and its resonance system consists of 3 capacitors and a coil of variable inductance having a DC inductance of 75 μ H. The inductance coil is wound on a toroidal core with an initial permeability of 400. The oscillations from the cathode of the oscillator tube are applied

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via a buffer stage to an automatic gain-control (AGC) detector and an output cathode-follower. The output of the AGC detector is applied to a DC amplifier and then to the grid of the oscillator tube, so that the amplitude of the oscillations over the range of frequencies from 2.074 to 3.059 Mc/s varies less than $\pm 6\%$. The local oscillator (heterodyne) is based on a triode and is quartz-crystal-stabilised. Its signal is applied to a balanced mixer based on a double triode. The output of the mixer is terminated by a matched filter having a bandwidth ranging from 0.5 to 8.5 Mc/s. The signal from the filter is applied to a h.f. amplifier provided with AGC. The system is also furnished with automatic frequency control (AFC) which performs two operations during each cycle of the modulation signal: adjustment of the lower frequency and trimming of the upper frequency. The wideband frequency multiplier comprises 3 diode frequency doublers with automatically tuned h.f. amplifiers and a wideband servo-amplifier tuned to the 8th harmonic (0.59 - 8.51 Mc/s) by means of a phase-type automatic tuning system.

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There are 1 figure and 1 table.

ASSOCIATION: Radiotekhnicheskiy institut GKAE
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